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# Does the multi-informant Strengths and Difficulties Questionnaire (SDQ) predict adolescent psychiatric diagnoses?

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## What & Why

The Strengths and Difficulties Questionnaire (SDQ) is internationally widely used to screen for psychosocial problems among adolescents. In clinical settings, the SDQ is used to provide clinicians with a preliminary impression of the type of problems at hand. Currently, knowledge on how useful the SDQ is for predicting adolescent psychiatric diagnoses is limited. We assessed the **predictive** and **discriminative** value of **adolescent-** and **parent-rated** SDQ scores for psychiatric disorders, diagnosed by professionals in outpatient community clinics, in a sample of **2753** Dutch adolescents aged 12–17.

## How

Per SDQ scale, its **predictive strength** for the disorder it is content-wise **related** to (hyperactivity/inattention scale for ADHD, conduct scale for CD/ODD, emotional scale for Anxiety/Mood disorder, social and prosocial scales for ASD), was assessed through a logistic regression analysis.

The **discriminative strength** of the SDQ scales was assessed through additional logistic regression analyses by using the SDQ scales to predict the disorders they are content-wise **unrelated** to.

## Results

### Predictive strength

Assess how well each SDQ scale predicts the disorder it is content-wise related to:

*AUC values indicating predictive strength per disorder*

Disorder	SDQ scale(s)	Informant		
		Adolescent	Parent	Both
ADHD <sup>a</sup>	Hyperactivity	<b>.74</b>	<b>.78</b>	<b>.80</b>
Anxiety/Mood disorder	Emotional	<b>.73</b>	<b>.69</b>	<b>.74</b>
ASD	Social + Prosocial	<b>.63</b>	<b>.74</b>	<b>.74</b>
CD/ODD	Conduct	<b>.69</b>	<b>.76</b>	<b>.77</b>

AUC = Area under the (receiver operating) curve

<sup>a</sup> ADHD = Attention-Deficit/Hyperactivity Disorder (n = 872), Anxiety/Mood disorder (n = 1,179), ASD = Autism Spectrum Disorder (n = 620), CD/ODD = Conduct/ Oppositional Disorder (n = 323)

<sup>b</sup> green: AUC > .70 (sufficient), red: AUC < .70 (insufficient)

## Results (continued)

### Discriminative strength

Assess how well each SDQ scale unintentionally predicts the disorders it is content-wise unrelated to:

*AUC values indicating discriminative strength per disorder*

Disorder	SDQ scale(s)	Informant		
		Adolescent	Parent	Both
ADHD <sup>a</sup>	Conduct	<b>.64<sup>b</sup></b>	<b>.64</b>	<b>.65</b>
	Emotional	<b>.67</b>	<b>.64</b>	<b>.68</b>
	Social + Prosocial	<b>.61</b>	<b>.59</b>	<b>.59</b>
Anxiety/Mood disorder	Conduct	<b>.56</b>	<b>.62</b>	<b>.62</b>
	Hyperactivity	<b>.55</b>	<b>.63</b>	<b>.65</b>
	Social + Prosocial	<b>.59</b>	<b>.59</b>	<b>.59</b>
ASD	Emotional	<b>.53</b>	<b>.56</b>	<b>.60</b>
	Conduct	<b>.49</b>	<b>.54</b>	<b>.54</b>
	Hyperactivity	<b>.53</b>	<b>.54</b>	<b>.59</b>
CD/ODD	Emotional	<b>.72</b>	<b>.66</b>	<b>.72</b>
	Hyperactivity	<b>.54</b>	<b>.64</b>	<b>.64</b>
	Social + Prosocial	<b>.60</b>	<b>.64</b>	<b>.64</b>

AUC = Area under the (receiver operating) curve

<sup>a</sup> ADHD = Attention-Deficit/Hyperactivity Disorder (n = 872), Anxiety/Mood disorder (n = 1,179), ASD = Autism Spectrum Disorder (n = 620), CD/ODD = Conduct/ Oppositional Disorder (n = 323)

<sup>b</sup> green: AUC < .70 (sufficient), red: AUC > .70 (insufficient)

## Conclusion & Implication

### Adolescent as informant

- The hyperactivity scale is predictive for ADHD

### Parent as informant

- The hyperactivity scale is predictive for ADHD
- The conduct scale is predictive for CD/ODD
- The social & prosocial scales are predictive for ASD

Besides being sufficiently predictive, each above mentioned scale sufficiently discriminates between the disorder it is content-wise related to and other disorders.

The SDQ emotional scale is insufficiently indicative of the presence of Anxiety/Mood disorders, regardless of the informant that was used.

The findings suggest that parent-rated SDQ scores can be used to provide clinicians with a preliminary impression of the type of problems for ADHD, CD/ODD, and ASD, and adolescent-rated scores for ADHD.

## Want to read more?

Vugteveen, J., De Bildt, A., Hartman, C., & Timmerman, M. (2018). Using the Dutch multi-informant strengths and difficulties questionnaire (SDQ) to predict adolescent psychiatric diagnoses. *European Child & Adolescent Psychiatry*, 1-13.

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